IN THE CLAIMS

1. (Presently Amended) A network architecture for ~~the~~ management of a storage area network by at least one client ~~one or more clients~~ which is independent of the storage area network, the network architecture comprising: ~~comprising;~~

~~a storage area network comprising~~

a storage system including a plurality of storage devices;

a plurality of host computers connected to the storage system through a first communications network, the ~~each~~ host computers ~~computer~~ including corresponding agents ~~at least one agent~~ for gathering operation status information associated with the storage area network; ~~transmitting data to and retrieving data from one for more of the plurality of storage devices; and~~

at least one ~~one or more~~ storage management server ~~servers~~ in communication with ~~each of~~ the plurality of host computers via the corresponding agents to retrieve the operation status information, ~~its agent; and, one or more clients independent of the storage area network,~~ the at least one ~~or more~~ storage management server ~~servers~~ being adapted to communicate with ~~connect to~~ the at least one client ~~one or more independent clients~~ via a web-based second communications network; and

the at least one ~~one or more~~ storage management server ~~servers~~ providing the operation status information received from the corresponding agents ~~an agent and relating to an operation status of the storage devices~~ to the at least one ~~one or more independent~~ client ~~clients~~ via use of the web-based second communications network and an object request broker ~~object-oriented dynamic linking mechanism~~ in the at least one storage management server for ensuring that the at least ~~at least~~ one ~~independent~~ client ~~client~~ is able to access the at least one storage management server ~~server~~.

2. (Presently Amended) The network architecture of claim 1 wherein the storage management server includes:

a poller for gathering the ~~information relating to the~~ operation status information from the corresponding agents ~~of the storage device~~; and

a central repository for storing the operation status information relating to an operation status of the ~~said one of~~ storage devices; and

an object server for distributing the operation status information ~~relating to the operation status of the storage devices~~ to the at least one client ~~clients~~.

3. (Presently Amended) The network architecture of claim 2 ~~claim 1~~ wherein the poller polls ~~each of~~ the corresponding agents ~~storage devices~~ at predetermined intervals to maintain a current status of an ~~the~~ operation of ~~each of~~ the storage devices.

4. (Presently Amended) The network architecture of claim 3 wherein the predetermined intervals are ~~interval is~~ less than ~~or equal to~~ one minute.

5. (Presently Amended) The network architecture of claim 1 wherein the at least one storage management server ~~further~~ provides the at least one client information relating to an operation status of storage connectivity devices which connect the storage devices to the host computers. ~~clients.~~

6. (Presently Amended) ~~The network architecture of claim 5 wherein~~ A network architecture for management of a storage area network by at least one client which is independent of the storage area network, the network architecture comprising:

a storage system including a plurality of storage devices;

a plurality of host computers connected to the storage system through a first communications network, the host computers including corresponding agents for gathering operation status information associated with the storage area network;

at least one storage management server in communication with the plurality of host computers via the corresponding agents to retrieve the operation status information, the at least one storage management server being adapted to communicate with the at least one client via a web-based second communications network; and

the at least one storage management server providing the operation status information received from the corresponding agents to the at least one client via use of the web-based second communications network and an object request broker in the at least one storage management server for ensuring that the at least one client is able to access the at least one storage management server;

wherein the at least one storage management server further provides information relating to an operation status of storage connectivity devices which connect storage devices to the host computers via communications with the agents; and the at least one storage management server including ~~includes~~:

a poller for gathering ~~the~~ information relating to an ~~the~~ operation status of the storage devices ~~device~~ and the storage connectivity devices; and

a central repository for storing the information ~~relating to the operation status of said one of the storage devices and storage connectivity devices~~; and

an object server for distributing the information relating to an operation status of the storage devices and storage connectivity devices to the at least one client ~~clients~~.

7. (Presently Amended) The network architecture of claim 6 wherein the poller polls ~~each of~~ the storage connectivity devices at predetermined intervals to maintain a current status of operation of ~~each of~~ the storage connectivity devices.

8. (Presently Amended) The network architecture of claim 1 wherein the at least one storage management server further includes a security component for limiting access by the at least one client ~~a client~~ to ~~one or more of~~ the storage devices.

9. (Presently Amended) The network architecture of claim 1 wherein the at least one storage management server further includes a web server for communicating with the at least one client ~~plurality of clients~~.

10. (Presently Amended) The network architecture of claim 1 wherein each of the at least one client ~~clients~~ includes a graphical user interface for displaying ~~the~~ information relating to an operation status of the storage devices.

11. (Presently Amended) The network architecture of claim 1 wherein the at least one host computer includes a plurality of host computers, the host computers running different types of operating systems. ~~plurality of host computers are of different types.~~

12. (Original) The network architecture of claim 1 wherein the plurality of storage devices are of different types.

13. (Presently Amended) The network architecture of claim 1 further comprising a plurality of storage management servers, each connected between the host computers and a ~~the~~ plurality of clients, each storage

management server~~,~~ providing information relating to an operation status of ~~said one of~~ the storage devices to the plurality of clients. ~~at least one of the clients.~~

14. (Presently Amended) The network architecture of claim 1 wherein each of the at least one ~~one or more~~ storage management server ~~servers~~ includes:

a poller for gathering the operation status information relating to an operation status of the storage devices ~~device~~; and

a central repository for storing the operation status information ~~relating to the operation status of said one of the storage devices~~; and

an object server for distributing the information relating to the operation status of ~~said one of~~ the storage devices to the at least one client ~~one or more clients~~, wherein the object server and the at least one client ~~one or more clients~~ communicate via use of the object request broker. ~~an object-oriented dynamic linking mechanism.~~

15. (Presently Amended) The network architecture of claim 14, wherein the at least one storage management server includes a plurality of storage management servers, the network architecture further comprising a name server, which is connected to communicate with ~~each of~~ the plurality of storage management servers~~,~~ to determine which ~~of the~~ central respository ~~repositories~~ of the plurality of storage management servers includes ~~the~~ information relating to an operation status of a given ~~said~~ one of the storage devices.

16. (Presently Amended) A method of managing a storage area network by at least one client ~~one or more clients~~ independent of the storage area network including:

~~a storage area network comprising~~

a storage system including a plurality of storage devices;

a plurality of host computers connected to the storage system through a first communication network, each host computer capable of ~~including at least one agent for~~ transmitting data to and retrieving data from at least one ~~one or more~~ of the plurality of storage devices;

the method comprising:

providing a storage management server between the at least one client ~~one or more of the independent clients~~ and the plurality of storage devices, the storage management server being adapted to connect to the at least one client ~~one or more independent clients~~ via a web-based second communication network and being in communication with ~~each of~~ the plurality of host computers via corresponding agents in the host computers ~~its agent~~;

providing to the storage management server from at least one of the corresponding agents ~~agent~~ information relating to a configuration of the storage system;

~~collecting,~~ at ~~from~~ the storage management server, collecting information from the corresponding agents, the information relating to the configuration of the storage system; and

~~providing by~~ from the storage management server, providing the information to the at least one client ~~of the one or more independent clients~~, wherein the storage management server and the at least one ~~independent~~ client communicate via an object request broker in the storage management server ~~object-oriented dynamic linking mechanism~~ for ensuring that the at least one ~~independent~~ client is able to access the storage management server.

17. (Presently Amended) The method of claim 16 wherein providing the information relating to the operation status of the storage devices includes using a poller to gather the information relating to an ~~the~~ operation status

of the storage device, the method further comprising storing ~~the~~ information relating to an operation status of said one of the storage devices in a central repository of the storage management server.

18. (Presently Amended) The method of claim 16 wherein providing the information relating to the configuration of the storage system ~~the operation status of the storage devices~~ includes using an object server to distribute the information relating to an operation status of the storage devices to the clients.

19. (Presently Amended) The method of claim 16 further comprising ~~wherein the poller polls~~ polling ~~each of~~ the storage devices at predetermined intervals to maintain a current status of the configuration of the storage system ~~operation of each of the storage devices~~.

20. (Presently Amended) The method of claim 16 further comprising providing information relating to an operation status of storage connectivity devices which connect the host computers to the storage devices.

21. (Previously Added) The network architecture of claim 1 wherein the second communications network is an Intranet.

22. (Presently Amended) The network architecture of claim 1 ~~claim 21~~ wherein the first communications network is a Fibre Channel network.

23. (Previously Added) The method of claim 16 wherein the second communications network is an Intranet.

24. (Presently Amended) The method of claim 16 wherein the first communications network is ~~in~~ a Fibre Channel network.

25. (New) In a network architecture for monitoring a storage network and corresponding storage devices via at least one storage management server, a method comprising:

at the at least one storage management server, communicating with agents in corresponding host computers that provide operation status information associated with the storage devices in the storage network, the corresponding agents of the host computers i) gathering the operation status information based on communications over a first network coupling the host computers to the corresponding storage devices, and ii) providing the operation status information to the at least one storage management server; and

from the at least one management server, communicating with at least one client over a web-based second network, the at least one storage management server including an object request broker providing the operation status information to the at least one client over the web-based second network, the object request broker ensuring that the one or more clients is able to access the operation status information from the at least one management server.

26. (New) The method of claim 25 wherein communicating with agents includes using a poller to gather the operation status information relating to an operation status of the storage devices, the method further comprising storing the operation status information relating to the operation status in a central repository associated with the at least one storage management server.

27. (New) The method of claim 26 wherein the poller polls each of the storage devices at predetermined intervals to maintain the current status of the operation of each of the storage devices.

28. (New) In a management server associated with a storage network, a method comprising:

communicating with multiple host computers that service requests for access to storage devices in the storage network, the host computers including agents to gather operation status information relating to an operation status of the storage devices;

retrieving the operation status information from the host computers;

storing the retrieved operation status information in an object store associated with the management server; and

providing the operation status information in the object store of the management server to at least one client over a communication network that operates independent of the storage network.

29. (New) A method as in claim 28, wherein the operation status information indicates that a particular channel in the storage network is inundated with traffic as a result of a large number of I/O (Input/Output) requests, the method further comprising:

notifying a given client of the at least one client about an occurrence of the large number of I/O requests, the given client, in turn, opting to run an application using another storage system to improve data throughput.

30. (New) A method as in claim 28 further comprising:

via the management server providing the operation status information to the at least one client, facilitating distribution of management responsibilities among multiple clients, which have different responsibilities and access rights with respect to objects in the object store of the management server.

31. (New) A method as in claim 30, wherein the operation status information includes at least one of type, properties and status of storage connectivity devices in the storage network.

32. (New) A method as in claim 28, wherein providing the operation status information enables a client of the at least one client to check a status of resources of the storage network that affects a throughput of data requested from the storage devices.

33. (New) A method as in claim 28 further comprising:

via the management server, operating in conjunction with another management server to manage and distribute operation status information to the at least one client.

34. (New) A method as in claim 28 further comprising:

providing a naming service to determine whether the management server, which is part of a group of management servers, includes information relating to a storage device of interest as specified by a particular client.

35. (New) A method as in claim 28 further comprising:

polling the agents at the host computers to retrieve and maintain current operation status information associated with the storage network.

36. (New) A method as in claim 28 further comprising:

limiting access to the operation status information in the management server to clients with appropriate privileges.

37. (New) A method as in claim 28 further comprising:

providing communications to the at least one client via an object request broker in the management server.

38. (New) A method as in claim 28, wherein the storage network includes connectivity devices for forwarding data packets, between the host computers and storage devices, to appropriate ports based on addresses of the data packets; and

wherein retrieving the operation status information from the host computers includes initiating communication with the host computers to discover a configuration associated with the at least one host computer, storage devices, and connectivity devices associated with the storage network.

39. (New) A method as in claim 38 further comprising:

initiating communication with a given agent of a corresponding host computer to identify a date and time associated with a detected change to the configuration.

40. (New) A method as in claim 28 further comprising:

identifying a configuration change to the storage network which includes a change associate with at leas one of: i) the at least one host computer, ii) the storage devices, and iii) connectivity devices between the host computers and the storage devices; and

based on detecting the configuration change, notifying an appropriate client registered to be notified of an occurrence of the configuration change.

41. (New) A method as in claim 28, wherein providing the operation status information in the object store of the management server to a given client enables the given client to generate, on a corresponding user's display

screen, a topology map identifying a configuration of resources associated with the storage network.

42. (New) A method as in claim 41, wherein providing the operation status information enables the given client to display a topology map illustrating connectivity of storage systems, host computers, and switches associated with the storage network.

43. (New) A method as in claim 42, wherein the corresponding user's display screen includes a sub-window listing storage arrays of the storage network accessible by the given client.